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Substitute for form 1449A INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Complete If Known	
				Application Number	09/745,285
				Filing Date	12/21/2000
				First Named Inventor	Rudolph W. Frey
				Group Art Unit	3739
				Examiner Name	
Sheet	1	of	1	Attorney Docket Number	24430.13

U.S. PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	U.S. Patent Document Kind Code ² Number (if known)		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	AA	5,993,441		Muller et al.	Nov. 30, 1999	

FOREIGN PATENT DOCUMENTS								
Examiner Initials*	Cite No.	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T
		Office	Number	Kind Code (If known)				
	AB	DE	199 26 476	A1	Wavelight Laser Technologie GmbH	12/14/2000		T

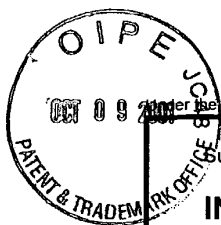
OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS			
Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or county where published.	T ²
<i>m</i>	AC	GAILITIS et al, Solid State Ultraviolet Laser Ablation of the Cornea and Synthetic Collagen Lenticules, Vol. 105, Sept. 1987, Pages 556-562.	

Examiner Signature	<i>[Signature]</i>	Date Considered	<i>April 6, 2002</i>
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		Number	Kind Code (if known)			
<i>dm</i>	AA	3,880,501		Munnerlyn	Apr. 29, 1975	
	AB	4,069,823		Isakov et al	Jan. 24, 1978	
<i>dm</i>	AC	4,523,821		Lang et al.	June 18, 1985	
	AD	4,579,430		Bille	Apr. 1, 1986	
<i>dm</i>	AE	4,632,528		Yoshino et al.	Dec. 30, 1986	
	AF	4,669,466		L'Esperance	June 2, 1987	
<i>dm</i>	AG	4,688,941		Philbert	Aug. 25, 1987	
	AH	4,702,245		Schröder et al	Oct. 27, 1987	
	AI	4,718,418		L'Esperance, Jr.	Jan. 12, 1988	
	AJ	4,721,379		L'Esperance	Jan. 26, 1988	
	AK	4,729,372		L'Esperance, Jr.	Mar. 8, 1988	
<i>dm</i>	AL	4,750,818		Cochran	Jun. 14, 1988	
<i>dm</i>	AM	4,764,930		Bille et al	Aug. 16, 1988	
<i>dm</i>	AN	4,838,679		Bille	June 13, 1989	
	AO	4,848,340		Bille et al	Jul. 18, 1989	
	AP	4,881,808		Bille et al	Nov. 21, 1989	
	AQ	4,901,718		Bille et al	Feb. 20, 1990	
<i>dm</i>	AR	4,907,586		Bille et al	Mar. 13, 1990	
	AS	4,941,093		Marshall et al	Jul. 10, 1990	
	AT	4,972,836		Schenck et al	Nov. 27, 1990	
<i>dm</i>	AU	4,988,348		Bille	Jan. 29, 1991	
<i>dm</i>	AV	4,991,953		Pflibsen et al.	Feb. 12, 1991	
<i>dm</i>	AW	5,026,977		Hubbard, Jr.	Jun. 25, 1991	
<i>dm</i>	AX	5,062,702		Bille	Nov. 5, 1991	
<i>dm</i>	AY	5,106,183		Yoder, Jr.	Apr. 21, 1992	
<i>dm</i>	AZ	5,114,628		Höfer et al.	May 19, 1992	

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		Number	Kind Code (if known)			
Dr	BA	5,139,022		Lempert	Aug. 18, 1992	
Dr	BB	5,147,352		Azema et al	Sep. 15, 1992	
Dr	BC	5,159,361		Cambier et al.	Oct. 27, 1992	
Dr	BD	5,177,511		Feuerstein et al.	Jan. 5, 1993	
Dr	BE	5,184,157		Ichihashi et al.	Feb. 2, 1993	
Dr	BF	5,196,006		Klopotek et al	Mar. 23, 1993	
Dr	BG	5,198,845		Triller	Mar. 30, 1993	
Dr	BH	5,202,709		Ischihashi et al.	Apr. 13, 1993	
Dr	BI	5,214,456		Gersten	May 25, 1993	
Dr	BJ	5,221,834		Lisson et al	Jun. 22, 1993	
Dr	BK	5,229,889		Kittell	July 20, 1993	
Dr	BL	5,233,174		Zmek	Aug. 3, 1993	
Dr	BM	5,243,367		Spellitz	Sept. 7, 1993	
Dr	BN	5,246,435		Bille et al	Sep. 21, 1993	
Dr	BO	5,258,791		Penney et al	Nov. 2, 1993	
Dr	BP	5,263,950		L'Esperance, Jr.	Nov. 23, 1993	
Dr	BQ	5,279,611		McDonnell et al	Jan. 18, 1994	
Dr	BR	5,293,871		Reinstein et al.	Mar. 15, 1994	
Dr	BS	5,298,971		Huang et al	Mar. 29, 1994	
Dr	BT	5,307,097		Baker	Apr. 26, 1994	
Dr	BU	5,324,281		Muller	Jun. 28, 1994	
Dr	BV	5,334,190		Seiler	Aug. 2, 1994	
Dr	BW	5,339,121		Shimmick et al	Aug. 16, 1994	
Dr	BX	5,360,424		Klopotek	Nov. 1, 1994	
Dr	BY	5,395,356		King et al	Mar. 7, 1995	
Dr	BZ	5,404,884		Lempert	Apr. 11, 1995	

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		Number	Kind Code (if known)			
	CA	5,410,376		Cornsweet et al	Apr. 25, 1995	
dm	CB	5,411,501		Klopotek	May 2, 1995	
dm	CC	5,423,801		Marshall et al	Jun. 13, 1995	
dm	CD	5,437,658		Muller et al	Aug. 1, 1995	
dm	CE	5,439,462		Bille et al	Aug. 8, 1995	
dm	CF	5,442,412		Frey et al.	Aug. 15, 1995	
dm	CG	5,452,031		Ducharme	Sept. 19, 1995	
dm	CH	5,461,212		Seiler et al	Oct. 24, 1995	
dm	CI	5,473,392		Klopotek	Dec. 5, 1995	
dm	CJ	5,474,548		Knopp et al	Dec. 12, 1995	
dm	CK	5,475,452		Kuhn et al.	Dec. 12, 1995	
dm	CL	5,491,524		Hellmuth et al.	Feb. 13, 1996	
dm	CM	5,493,391		Neal et al.	Feb. 20, 1996	
dm	CN	5,502,518		Lieberman	Mar. 26, 1996	
dm	CO	5,505,723		Muller	Apr. 9, 1996	
dm	CP	5,507,741		L'Esperance, Jr.	Apr. 16, 1996	
dm	CQ	5,512,965		Snook	Apr. 30, 1996	
dm	CR	5,512,966		Snook	April 30, 1996	
dm	CS	5,521,657		Klopotek	May 28, 1996	
dm	CT	5,548,354		Kasahara et al.	Aug. 20, 1996	
dm	CU	5,556,395		Shimmick et al	Sep. 17, 1996	
dm	CV	5,563,709		Poultney	Oct. 8, 1996	
dm	CW	5,570,142		Lieberman	Oct. 29, 1996	
dm	CX	5,581,347		Le Saux et al.	Dec. 3, 1996	
dm	CY	5,592,246		Kuhn et al.	Jan. 7, 1997	
dm	CZ	5,629,765		Schmutz	May 13, 1997	

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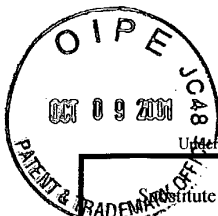
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		Number	Kind Code (if known)			
dm	DA	5,632,282		Hay et al	May 27, 1997	
dm	DB	5,632,742		Frey et al.	May 27, 1997	
dm	DC	5,673,096		Dorsel et al.	Sep. 30, 1997	
dm	DD	5,684,545		Dou et al	Nov. 4, 1997	
dm	DE	5,711,762		Trokel	Jan. 27, 1998	
dm	DF	5,722,427		Wakil et al.	Mar. 3, 1998	
dm	DG	5,735,283		Snook	Apr. 7, 1998	
dm	DH	5,735,843		Trokel	Apr. 7, 1998	
dm	DI	5,740,803		Gray et al.	Apr. 21, 1998	
dm	DJ	5,757,463		Kohayakawa	May 26, 1998	
dm	DK	5,777,719		Williams et al.	July 7, 1998	
dm	DL	5,784,146		Nanjo et al.	July 21, 1998	
dm	DM	5,785,704		Bille et al.	July 28, 1998	
dm	DN	5,822,035		Bille	Oct. 13, 1998	
dm	DO	5,825,476		Abitol et al.	Oct. 20, 1998	
dm	DO	5,841,511		D'Souza et al.	Nov. 24, 1998	
dm	DQ	5,847,804		Sarver et al.	Dec. 8, 1998	
dm	DR	5,861,955		Gordon	Jan. 19, 1999	
dm	DS	5,864,381		Neal et al.	Jan. 26, 1999	
dm	DT	5,920,373		Bille	July 6, 1999	
dm	DU	5,936,720		Neal et al.	Aug. 10, 1999	
dm	DV	5,943,117		Van De Velde	12/99	
dm	DW	5,949,521		Williams et al.	Sept. 7, 1999	
dm	DX	5,963,300		Horwitz	Oct. 5, 1999	
dm	DY	5,966,197		Yee	Oct. 12, 1999	
dm	DZ	5,994,687		Chanteloup et al.	Nov. 30, 1999	

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<i>Dr</i>	EA	6,007,204		Fahrenkrug et al.	Dec. 28, 1999	
<i>Dr</i>	EB	6,043,885		Mazuet et al.	Mar. 28, 2000	
<i>Dr</i>	EC	6,050,687		Bille et al.	Apr. 18, 2000	
<i>Dr</i>	ED	6,057,913		Brown et al.	May 02, 2000	
<i>Dr</i>	EE	6,086,204		Magnante	Jul. 11, 2000	
<i>Dr</i>	EF	6,095,651		Williams et al.	Aug. 1, 2000	
<i>Dr</i>	EG	6,155,684		Bille et al.	Dec. 05, 2000	

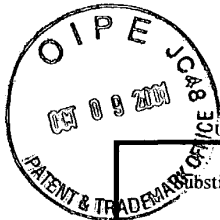
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	EH	PCT	WO 87/05205		G. Rodenstock Instrumente GmbH	Sept. 11, 1987		
	EI	PCT	WO 87/06478		Institut National De La Sante Et De La Recherche Medicale	Nov. 5, 1987		
	EJ	PCT	WO 92/01417		Horwitz, Larry S.	Feb. 6, 1992		
	EK	JP	5-146409		Topeon Corp.	June 15, 1993		T
	EL	JP	6-327634		Topcon Corp.	Nov. 29, 1994		T
	EM	WO	93/28989		Autonomous Technologies Corp.	Nov. 2, 1995		
	EN	EP	0 697 611	A3	Carl Zeiss	Feb. 21, 1996		T
	EO	EP	0 697 611	A2	Carl Zeiss	Feb. 21, 1996		T
	EP	DE	42 22 395	A1	Meyer-Roedern	Jan. 13, 1994		
	EQ	PCT	WO 98/27863		University of Rochester	July 2, 1998		T

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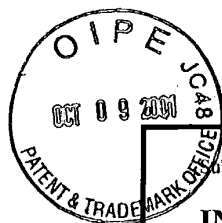
OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS			
Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or county where published.	T ²
	ER	PULIANTO, et al., "High-Speed Photography of Excimer Laser Ablation of the Cornea," <i>Arch Ophthalmol</i> , Vol. 105, Sept. 1987, pages 1255-1259.	
	ES	LIANG, et al., "Objective Measurement of Wave Aberrations of the Human Eye with the Use of a Hartmann-Shack Wave-Front Sensor," <i>J. Opt. Soc. Am. A</i> , Vol. 11, No. 7, July 1994, pages 1949-1957.	
	ET	WU, "Supernormal Vision, a Focus on Adaptive Optics Improves Images of the Eye and Boosts Vision," <i>Science News</i> , Vol. 152, November 15, 1997, pages 312-313.	
	EU	DREHER, et al., "Active Optical Depth Resolution Improvement of the Laser-Tomographic Scanner," <i>Applied Optics</i> , Vol. 28, No. 4, February 1989, pages 804-808.	
	EV	GEARY, "Appendix 1.1 - Basic Geometrical Optics, Chapter 6 - Indirect Wavefront Measurement, Part II," and "Chapter 7 - Wavefront Sensor Characterization & Calibration," <i>Introduction to Wavefront Sensors</i> , May 1995, pages 10-11, 89-103, and 105-109.	
	FW	"Scientists Snap Sharpest Pictures of Living Human Retina," http://www.rochester.edu/pr/releases/opt/will.htm , October 3, 1994.	
	EX	THE APPLIED OPTICS GROUP, "Shack Hartmann Sensors," http://op.ph.ic.ac.uk/ao/sh_sense.html , June 4, 1996, pages 1-3.	
	EY	THE APPLIED OPTICS GROUP, "Results from UKIRT," http://op.ph.ic.ac.uk/ao/ukirt-res.html , February 22, 1995, pages 1-2.	
	EZ	THE APPLIED OPTICS GROUP, "Astronomical Imaging Through Turbulence: An Overview," http://op.ph.ic.ac.uk/ao/overview.html , June 4, 1996, pages 1-4.	
	FA	ESA, WFS, "Wave Front Sensor," http://esapub.esrin.esa.it/pointtotest/test251.html , May 23, 1997, pages 1-2.	
	FB	WILLIAMS, "Limits of Human Vision," http://www.cvs.rochester.edu/people/d_williams/d_williams.html , December 30, 1998, pages 1-4.	
	FC	"Extensions of Low-Cost Adaptive Optics: Imaging of Space Objects, the Retina, and Power Projection," <i>Industrial Sensors and Actuators</i> , dated Dec. 1993 (actual publication date, if any, unknown), pp. 1, 10, and 15.	

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Complete If Known	
				Application Number	09/745,285
				Filing Date	12/21/2000
				First Named Inventor	Rudolph W. Frey
				Group Art Unit	3739
				Examiner Name	
Sheet	7	of	9	Attorney Docket Number	24430.13

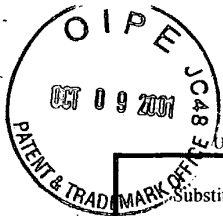
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	FD	LABJUN, et al., "Astigmatismuskorrektur durch Laserthermokeratoplastik (LTK) - Ein Ansatz für die Korrektur des hohen Astigmatismus nach Perforierender Keratoplastik," <i>Contactologia</i> 18D (1996), pp. 175-183.	
	FE	COHEN, et al., "Assessment of the Power and Height of Radial Aspheres Reported by a Computer-assisted Keratoscope," <i>American Journal of Ophthalmology</i> , Vol. 119, Vol. No. 6, Nov. 30, 1994, pp. 723-732.	
	FF	CORBETT, et al., "The Topography of the Normal Cornea," <i>Eur J Implant Ref Surg.</i> , Vol. 6, Oct., 1994, pp. 286-297.	
	FG	MAEDER, et al., "Accurate 3D Corneal Surface Measurement Using an Automated Mapping Approach," <i>SPIE</i> , Vol. 2434, 1995, pp. 328-334.	
	FH	SALMON, et al., "Comparison of Elevation, Curvature, and Power Descriptors for Corneal Topographic Mapping," <i>Optometry & Vision Science</i> , Vol. 72, No. 11, 1995, pp. 800-808.	
	FI	PAVLOPOULOS, et al., "The Effect of Artificial Tears on Computer-assisted Corneal Topography in Normal Eyes and After Penetrating Keratoplasty," <i>American Journal of Ophthalmology</i> , Vol. 119, June 1995, pp. 712-722.	
	FI	ROBERTS, "Characterization of the Inherent Error in a Spherically Biased Corneal Topography System in Mapping a Radially Aspheric Surface," <i>Journal of Refractive & Corneal Surgery</i> , Vol. 10, March/April 1994, pp. 103-111.	
	FK	THORNTON, "Clinical Evaluation of Corneal Topography," <i>J. Cataract Refract. Surg.</i> , Vol. 19, Supplement 1993, pp. 198-202.	
	FL	RABINOWITZ, et al., "Computer-assisted Corneal Topography in Keratoconus," <i>Refractive & Corneal Surgery</i> , Vol. 5, Nov./Dec. 1989, pp. 400-408.	
	FM	WILSON, et al., "Accuracy and Precision of the Corneal Analysis System and the Topographic Modeling System," <i>Cornea</i> , Vol. 11, No. 1, 1992, pp. 28-35.	
	FN	BOGAN, et al., "Computer-assisted Videokeratography of Corneal Topography After Radial Keratotomy," <i>Arch. Ophthalmol.</i> , Vol. 109, June 1991, pp. 834-841.	
	FO	BOGAN, et al., "Classification of Normal Corneal Topography Based on Computer-assisted Videokeratography," <i>Arch. Ophthalmol.</i> , Vol. 108, July 1990, pp. 945-949.	

Examiner Signature		Date Considered	April 6, 2001
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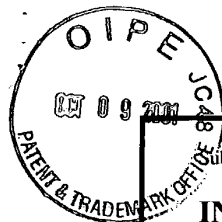
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	FP	REIDY, et al., "The Corneal Topography of Epikeratophakia," <i>Refractive & Corneal Surgery</i> , Vol. 6, Jan./Feb. 1990, pp. 26-31.	
	FQ	DINGELDEIN, et al., "The Topography of Normal Corneas," <i>Arch. Ophthalmol.</i> , Vol. 107, April 1989, pp. 512-518.	
	FR	MCDONNELL, et al., "Topographic Analysis and Visual Acuity After Radial Keratotomy," <i>American Journal of Ophthalmology</i> , Vol. 106, No. 6, December 1988, pp. 692-695.	
	FS	MCDONNELL, et al., "Corneal Topographic Changes After Radial Keratotomy," <i>Ophthalmology</i> , Vol. 96, No. 1, January 1989, pp. 45-49.	
	FT	KIELY, et al., "The Mean Shape of the Human Cornea," <i>Optica Acta</i> , Vol. 29, No. 8, 1982, pp. 1027-1040.	
	FU	BAFNA, et al., "Corneal Power Calculated by the Paraxial Formula and Snell's Law in Normal Corneas," <i>Investigative Ophthalmology & Visual Science</i> , Vol. 37, No. 3, February 1996, Poster No. 2589.	
	FV	MATALLANA, et al., "3-D Video Corneal Topography True Elevation Mapping," <i>Investigative Ophthalmology & Visual Science</i> , Vol. 37, No. 3, February 1996, Poster No. 2590.	
	FW	AOYAMA, et al., "Quantitative Evaluation of Corneal Astigmatism Using Computer Corneal Topography and Newly Developed Software," <i>Investigative Ophthalmology & Visual Science</i> , Vol. 37, No. 3, February 1996, Poster No. 2591.	
	FX	CELIKOL, et al., "Neural Network Analysis of Videokeratography Following Excimer Laser Photorefractive Keratectomy," <i>Investigative Ophthalmology & Visual Science</i> , Vol. 37, No. 3, February 1996, Poster No. 2592.	
	FY	WALSH, et al., "Objective Technique for the Determination of Monochromatic Aberrations of the Human Eye," <i>J. Opt. Soc. Am. A</i> , Vol. 1, No. 9, Sept. 1984, pp. 987-992.	
	FZ	WILLIAMS, et al., "Adaptive Optics for High Resolution Retinal Imaging," <i>Investigative Ophthalmology & Visual Science</i> , Vol. 37, No. 3, February 1996, p. 1055.	

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	GA	CHARMAN, "Wavefront Aberration of the Eye: A Review," <i>Optometry and Vision Science</i> , Vol. 68, No. 8, pp. 574-583.	
	GB	BARTSCH, et al., "Resolution Improvement in Confocal Scanning Laser Tomography of the Human Fundus," <i>1994 Technical Digest Series</i> , Vol. 2 (Optical Society of America, Washington D. C.), 1994, pp. 134-137.	
	GC	DREHER, et al., "Active Optical Depth Resolution Improvement of the Laser Tomographic Scanner," <i>Applied Optics</i> , Vol. 28, No. 4, Feb. 1989, pp. 804-808.	
	GD	BILLE, et al., "Scanning Laser Tomography of the Living Human Eye," <i>Noninvasive Diagnostic Techniques in Ophthalmology</i> , Chapter 28, edited by Masters, B.R., Springer-Verlag, 1990, pp. 528-547.	
	GE	LIANG, JUNZHONG, <i>A New Method to Precisely Measure the Wave Aberrations of the Human Eye with a Hartmann Shack Wavefront Sensor</i> , Inaugural Dissertation, December 1991, pages 1-115, Heidelberg, Germany.	
	GF	BILLE, et al., "Imaging of the Retina by Scanning Laser Tomography," <i>New Methods in Microscopy and Low Light Imaging</i> , Vol. 1161, 1989, pages 417-425.	
	GG	CUBALCHINI, "Modal Wave-front Estimation from Phase Derivative Measurements," <i>J. Opt. Soc. Am.</i> , Vol. 69, 1979, pages 972-977.	
	GH	"Modal Wave-front Estimation from Phase Derivative Measurements," Referenced in Bille, U.S. Patent No. 5,062,702 IDS, 1990.	
	GI	FREISCHLAD, et al., "Modal Estimation of a Wave Front from Difference Measurements Using the Discrete Fourier Transform," <i>J. Opt. Soc. Am.</i> , Vol. 3, No. 11, November 1986, pages 1852-1861.	
	GJ	KLYCE, et al., "Imaging, Reconstruction, and Display of Corneal Topography," <i>New Methods in Microscopy and Low Light Imaging</i> , Vol. 1161, 1989, pages 409-416.	
	GK	BAKER, "Optical Surface Testing of the Cornea," <i>New Methods in Microscopy and Low Light Imaging</i> , Vol. 1161, 1989, pages 427-437.	
	GL	SOUTHWELL, "Wave-front Estimation from Wave-front Slope Measurements," <i>J. Opt. Soc. Am.</i> , Vol. 70, No. 8, August 1980, pages 998-1005.	

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